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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,580	01/08/2004	Matthew Sommers	GLOZ 2 00153 (#133821)	6610

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EXAMINER	
PREVIL, DANIEL	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/753,580	SOMMERS ET AL.	
	Examiner	Art Unit	
	Daniel Previl	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/08/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison (US 6,527,422).

Regarding claims 1, 5, Hutchison discloses a signaling control device apparatus (col. 1, lines 14-17) comprising: a light source including at least one LED, the light source having a light emitting surface (main circuit board 48) (fig. 3, ref. 3) (fig. 3; col. 6, lines 30-35); at least one sensor set to detect a light directed to the light emitting surface (fig. 3) (col. 10, lines 33-36) and generate a control signal indicative of a presence of the light (col. 10, lines 60-67).

Although, Hutchison discloses all the limitations above but fails to specify a sensor that detects an external light load. Since, Hutchison discloses the sun setting to the west late in the afternoon (col. 7, lines 5-7). So, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use photodiodes (PD2) to sense accurately the sun that setting to the west late in the afternoon in order to

control the visibility range of a traffic signal, thereby enhancing drivers' performance as taught by Hutchison (col. 2, lines 25-39).

Regarding claim 2, Hutchison discloses one sensor includes a photodiode (col. 10, lines 33-36).

Regarding claim 3, Hutchison discloses one LED and at least one sensor are disposed on the printed circuit board (fig. 3).

Regarding claim 4, Hutchison discloses one sensor is positioned in a location remote from the printed circuit board (col. 10, lines 63-67; col. 11, lines 1-2).

Regarding claim 6, Hutchison discloses the electrical control system triggers an increase in current being supplied to the at least one LED in response to the received control signal (col. 10, lines 36-48).

Regarding claim 7, Hutchinson discloses the current is continuous (col. 10, line 21 and line 37).

Regarding claim 8, Hutchison discloses the current is pulsing (col. 10, line 21-22 and line 54-55).

Regarding claim 9, Hutchison discloses the current is raised by pulsing the current at a frequency higher than visually perceivable (50%) (col. 10, lines 54-54-63).

Regarding claim 10, Hutchison discloses a control system to receive a control signal indicative of a value of the magnitude of the load

and to generate an increased current to be supplied to the at least one LED in proportion to the load magnitude (col. 7, lines 1-11).

Although, Hutchison discloses all the limitations in claim 1 but fails to specify a sensor detects a magnitude of the light load. Since, Hutchison discloses the sun setting to the west late in the afternoon at an elevation of 10 degree or less (col. 7, lines 5-7). So, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use photodiodes (PD2) to detect accurately the sun that setting to the west late in the afternoon at an elevation of 10 degree or less in order to control the visibility range of a traffic signal, thereby enhancing drivers' performance as taught by Hutchison (col. 2, lines 25-39).

Regarding claim 11, Hutchison discloses a signaling control device apparatus (col. 1, lines 14-17) comprising: providing a light source including at least one LED, the light source having a light emitting surface (main circuit board 48) (fig. 3, ref. 3) (fig. 3; col. 6, lines 30-35); setting at least one sensor set to detect a light directed to the light emitting surface (fig. 3) (col. 10, lines 33-36) and in response to detecting a presence of the light, generate a control signal indicative of a presence of the light (col. 10, lines 60-67).

Although, Hutchison discloses all the limitations above but fails to specify a sensor that detects an external light load. Since, Hutchison discloses the sun setting to the west late in the afternoon (col. 7, lines 5-

7). So, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use photodiodes (PD2) to sense accurately the sun that setting to the west late in the afternoon in order to control the visibility range of a traffic signal, thereby enhancing drivers' performance as taught by Hutchison (col. 2, lines 25-39).

Regarding claim 12, Hutchison discloses one sensor includes a photodiode (col. 10, lines 33-36).

Regarding claim 13, Hutchison discloses one LED and at least one sensor are disposed on the printed circuit board (fig. 3).

Regarding claim 14, Hutchison discloses one sensor is positioned in a location remote from the printed circuit board (col. 10, lines 63-67; col. 11, lines 1-2).

Regarding claim 15, Hutchison discloses the step of receiving the control signal by an electrical control system (abstract).

Regarding claim 16, Hutchison discloses the electrical control system triggers an increase in current being supplied to the at least one LED in response to the received control signal (col. 10, lines 36-48).

Regarding claim 17, Hutchinson discloses a continuous current and a pulsing current (col. 10, lines 21-22, line 37 and lines 54-55).

Regarding claim 18, Hutchison discloses the current is raised by pulsing the current at a frequency higher than visually perceivable (50%) (col. 10, lines 54-54-63).

Regarding claim 19, Hutchison discloses detecting a magnitude of the light load (elevation of 10 degree or less) (col. 7, lines 5-6) and generating an output control signal indicative of a value of the light load magnitude (col. 7, lines 5-8).

Regarding claim 20, Hutchison discloses the step of receiving the magnitude value by an electrical control system (col. 7, lines 1-6) and supplying an elevated current to the at least one LED, the elevated current proportionate to the detected light load magnitude (col. 7, lines 5-8).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

O. S. Field (US 2,376,534) discloses a light signal for railroads.

Erickson et al. (US 4,536,847) discloses a Heliostat control employing direct current motor.

Colby (US 6,809,655) discloses a multi-mode signal.

Zimmermann et al. (US 5,952,917) discloses a taillight fixture of a vehicle preferably a motor vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is (571) 272-

2971. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Previl
Examiner
Art Unit 2636

DP
June 1, 2005.

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600